

-2-

AMENDMENT TO THE CLAIMS

1. (Currently amended) A method in a data storage system having a storage medium comprising a plurality of tracks, each track comprising a plurality of sectors, the method comprising:
 - determining a number of sectors to be read from the storage medium;
 - reading data from all sectors of the number of sectors during a first operation of the data storage system;
 - identifying error sectors having a number of errors above a predetermined threshold;
 - providing a signal for each sector indicative of whether each sector is an error sector or a non-error sector;
 - generating a mask based on the signals;
 - correcting the data from the error sectors; and
 - writing corrected data to only the error sectors based on the signals for each sector indicative of whether each sector is an error sector or a non-error sector during a second operation of the data storage system.
2. (Original) The method of claim 1 wherein the step of identifying includes tracking a number of errors in each sector.
- 3-4. (Cancelled).
5. (Currently amended) The method of ~~claim 3~~ claim 1, and further comprising storing the mask in a buffer.
6. (Previously Presented) The method of claim 1 and further comprising reading data from only the error sectors during an intermediate operation of the data storage system.
7. (Previously Presented) The method of claim 6 wherein the intermediate operation of the data storage system occurs between

-3-

the first and second operations of the data storage system.

8. (Original) The method of claim 1 wherein the step of reading data from the error sectors includes storing data in a buffer.

9. (Original) The method of claim 1 wherein the step of correcting includes using error correction code.

10. (Currently Amended) A data storage system, comprising:
a storage medium, the storage medium comprising a plurality of tracks, each track comprising a plurality of sectors;
a buffer memory;
a channel configured to read data from and write data to the storage medium; and
a controller operably coupled to the channel and configured to determine a number of sectors to be read from the storage medium, read all sectors of the number of sectors on the storage medium during a first operation of the data storage system, identify error sectors having a number of errors above a predetermined threshold, generate a mask containing signals for the number of sectors indicative of whether each sector is an error sector or a non-error sector, correct the data from the error sectors and selectively read data from and write corrected data to only the error sectors on the storage medium based on the mask during a second operation of the data storage system.

11. (Previously Presented) The data storage system of claim 10 wherein the controller is further configured to track the number of errors occurring in each sector.

12. (Cancelled)

-4-

13. (Cancelled)

14. (Currently amended) The data storage system of ~~claim 12~~
claim 10 wherein the mask is stored in the buffer memory.

15. (Previously Presented) The data storage system of claim 10, wherein the storage medium controller is further configured to read data from only the error sectors during an intermediate operation of the data storage system, occurring between the first and second operations of the data storage system.

16. (Previously Presented) The data storage system of claim 10 wherein the controller further comprises an error correction code unit to correct the data from the error sectors.

17. (Previously Presented) The data storage system of claim 10 wherein the controller is further configured to store the data from the error sectors in the buffer memory.

18-20. (Cancelled).